

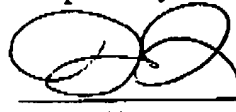
**REMARKS**

Claims 1, 3-13, 15-23, 26-30, 40 and 42-50 are all the claims pending in the application. Claims 2, 24, 25 and 41 were canceled in the Amendment dated July 8, 2002. Claims 14 and 31-39 were canceled in the Amendment dated March 24, 2003.

Applicants note that claim 25 was mistakenly included as pending in the application in the Amendment filed March 24, 2003, while it was canceled in the Amendment filed July 8, 2002. The instant Supplemental Amendment properly lists claim 25 as canceled.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Drew Hissong  
Registration No. 44,765

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE



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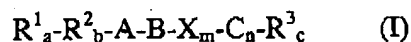
PATENT TRADEMARK OFFICE

Date: April 23, 2003

**IN THE CLAIMS:**

Please enter the following amended claims:

1. (currently amended) An isolated A-purified peptide comprising at least 12 amino acids, the peptide having an amino acid composition such that the peptide is amphipathic, cationic and forms a stable  $\alpha$ -helix and is represented by the following formula (I) or the retro orientation of formula (I):



wherein

$R^1$ ,  $R^2$ , and  $R^3$  are each an amino acid, and wherein for each a (which is an integer from 0 to 15), each b (which is an integer from 0 to 15) and each c (which is an integer from 0 to 15), each  $R^1$ ,  $R^2$  and  $R^3$  is independently may be the same or different for each  $R^1_a$ ,  $R^2_b$  and  $R^3_c$ .

a is an integer from 0 to 15,

b is an integer from 0 to 15,

wherein the combination of a + b is not greater than 15,

e is an integer from 0 to 15,

each A is an amino acid independently selected from the group consisting of Lys, Arg and His,

each B is an amino acid independently selected from the group consisting of Phe, Trp and Tyr,

each C is an amino acid independently selected from the group consisting of Leu, Ile, Val and Ala,

X may be is either (A-B-C-A) or (A-C-B-A), and for each m (which is an integer from 2 to 8), each X is independently the same or different for each  $X_m$ , and

~~m is an integer of from 2 to 8, and~~

n is an integer of from 1 to 3.

~~2. (canceled).~~

2 ~~3.~~ (currently amended) The isolated ~~purified~~ peptide according to claim 1, wherein a + b and c are each an integer of from 1 to 10.

3 ~~4.~~ (currently amended) The isolated ~~purified~~ peptide according to claim 1, wherein  $R^1_a$  is selected from the group consisting of:

Gly<sub>p</sub>, wherein p is an integer of from 1 to 10; and

Ala<sub>q</sub>, wherein q is an integer of from 1 to 10.

F1 4 ~~5.~~ (currently amended) The isolated ~~purified~~ peptide according to claim 1, wherein none of the amino acids corresponding to each  $R^1$  in  $R^1_a$ , each  $R^2$  in  $R^2_b$ , and each  $R^3$  in  $R^3_c$ ,  $R^1$ ,  $R^2$  or  $R^3$ , or both, do not comprise an amino acid selected from the group consisting of A, B and C as defined in claim 1.

5 ~~6.~~ (currently amended) The isolated ~~purified~~ peptide according to claim 1, wherein motifs (A-C-B-A) are present in said peptide in a greater amount than motifs (A-B-C-A).

6 ~~7.~~ (currently amended) The isolated peptide according to claim 1, wherein n = 3.

7 ~~8.~~ (currently amended) An isolated A peptide comprising amino acids 1 to 19 of SEQ ID NO: 1.

8 ~~9.~~ (currently amended) An isolated A peptide comprising amino acids 1 to 19 of SEQ ID NO: 2.

9 ~~10.~~ (currently amended) An isolated A peptide comprising amino acids 1 to 19 of SEQ ID NO: 3.

~~10~~ ~~11~~. (currently amended) An isolated-A peptide comprising amino acids 1 to 19 of  
SEQ ID NO: 4.

~~11~~ ~~12~~. (currently amended) An isolated-A peptide comprising amino acids 1 to 29 of  
SEQ ID NO: 5.

~~12~~ ~~13~~. (currently amended) The isolated ~~purified~~-peptide according to claim 1, wherein  
the peptide is coupled to a non-peptide carrier, radioactive tag or fluorescent label.

~~14~~. (canceled).

~~13~~ ~~15~~. (currently amended) A pharmaceutical composition comprising an isolated  
peptide according to claim 1 as an active component and a pharmaceutically acceptable carrier in  
a pharmaceutically acceptable dosage form.

F1 ~~14~~ ~~16~~. (original) The pharmaceutical composition according to claim ~~15~~ <sup>13</sup>, wherein the  
infection is caused by an organism or compound of an organism, said organism being selected  
from the group comprising a bacterium, a fungus, a virus and a parasite.

~~15~~ ~~17~~. (original) The pharmaceutical composition according to claim ~~15~~ <sup>13</sup>, wherein the  
infection is caused by a bacterium.

~~16~~ ~~18~~. (original) The pharmaceutical composition according to claim ~~15~~ <sup>13</sup>, wherein the  
infection is caused by a bacterium exhibiting multiple drug resistance (MDR).

~~17~~ ~~19~~. (original) The pharmaceutical composition according to claim ~~15~~ <sup>13</sup>, wherein the  
infection is caused by a Gram positive bacterium.

~~18~~ ~~20~~. (original) The pharmaceutical composition according to claim ~~15~~ <sup>13</sup>, wherein the  
infection is caused by a Gram negative bacterium.

~~19~~ ~~21~~. (currently amended) A pharmaceutical composition comprising a mixture of at  
least two isolated peptides according to claim 1 as active components for treating topical and

systemic microbial or parasite infections, or both, and a pharmaceutically acceptable carrier in a pharmaceutically acceptable dosage form.

~~20~~ <sup>13</sup> ~~22~~. (previously amended) The pharmaceutical composition according to claim ~~15~~, further comprising an antibiotic selected from the group consisting of penicillins, cephalosporins,  $\beta$ -lactams, aminoglycosides, quinolones, tetracyclines, macrolides, glycopeptides or lipopeptides, hydrophobic antibiotics, ribosome inhibitors or antibiotics having a large lipid-like lactone ring.

~~21~~ <sup>13</sup> ~~23~~. (previously amended) The pharmaceutical composition according to claim ~~15~~, wherein the infection is caused by a parasite.

~~24-25. (canceled).~~

<sup>R1</sup> ~~22~~ <sup>26</sup>. (currently amended) A pharmaceutical composition comprising an isolated peptide according to claim 1 as active component for treating septic shock.

~~23~~ <sup>13</sup> ~~27~~. (original) The pharmaceutical composition according to claim ~~15~~, wherein the treatment is prophylactic.

~~24~~ <sup>28</sup>. (currently amended) A method for treatment of microbial infection in a mammal, comprising administering to a mammal in need of such treatment a therapeutically effective amount of an isolated peptide according to claim 1.

~~25~~ <sup>24</sup> ~~29~~. (previously amended) The method according to claim ~~28~~, wherein said treatment is applied after trauma or suspected infection has occurred.

~~26~~ <sup>24</sup> ~~30~~. (original) The method according to claim ~~28~~, wherein said treatment is applied after surgery.

~~31-39. (canceled).~~

27/40. (currently amended) A pharmaceutical composition for treating bacterial inflammation comprising a therapeutically effective amount of an isolated purified peptide according to claim 1, and a pharmaceutically acceptable carrier.

~~41. (canceled).~~

28/42. (currently added) The isolated purified peptide according to claim 1, wherein a + b and c are each 0.

29/43. (previously added) The pharmaceutical composition according to claim 23, wherein said parasite is selected from the group consisting of a parasite causing malaria and a parasite causing Trypanosomiasis.

F1 30/44. (currently amended) A method for treatment of microbial infection in a human, comprising administering to a human in need of such treatment a therapeutically effective amount of an isolated peptide according to claim 1.

31/45. (currently amended) A method for inhibiting the growth of a microbe comprising the step of contacting a microbe with an effective amount of an isolated purified peptide according to claim 1.

32/46. (currently amended) A method for inhibiting the growth of a Gram-negative bacterium comprising the step of contacting a Gram-negative bacterium with an effective amount of an isolated purified peptide according to claim 1.

33/47. (currently amended) A method for inhibiting the growth of a Gram-positive bacterium comprising the step of contacting a Gram-positive bacterium with an effective amount of an isolated purified peptide according to claim 1.

34/48. (currently amended) The isolated purified peptide according to claim 1, wherein  $R^2$  is ACAA, wherein each A and C is as independently defined in claim 1.

~~35~~<sup>13</sup> 49. (currently amended) The pharmaceutical composition according to claim ~~15~~<sup>13</sup>,

wherein said isolated peptide is present in said composition in an amount effective to treat one or more of the conditions selected from the group consisting of a topical microbial infection, a topical parasitic infection, a systemic microbial infection, a systemic parasitic infection, a topical tumor, a systemic tumor, inflammation and bacterial septic shock.

~~36~~<sup>13</sup> 50. (previously added) The pharmaceutical composition according to claim ~~15~~<sup>13</sup>, wherein said composition is in the form of a topical preparation, a parenteral preparation or an oral preparation.

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